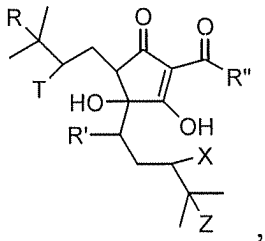
AMENDMENT TO THE CLAIMS

A listing of the claims presented in this patent application appears below. This listing replaces all prior versions and listings of claims in this patent application.

1. (Currently amended) A composition for treatment of inflammation comprising (1) a compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids; and (2) a methylxanthine, wherein the compound and the methylxanthine are in synergistic amounts.

2. (Previously presented) The composition of claim 1, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids is derived from hops.

3. (Previously presented) The composition of claim 1, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member of a supragenus having the formula:

(Supragenus), 

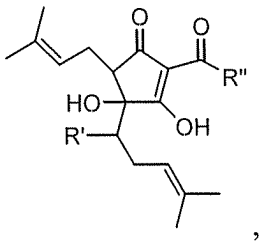
,

wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

wherein R" is selected from the group consisting of $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, and $CH(CH_3)CH_2CH_3$;

and wherein R, T, X, and Z are independently selected from the group consisting of H, F, Cl, Br, I, and π orbital, with the proviso that if one of R, T, X, or Z is a π orbital, then the adjacent R, T, X, or Z is also a π orbital, thereby forming a double bond.

4. (Previously presented) The composition of claim 1, wherein said compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member of Genus A having the formula:

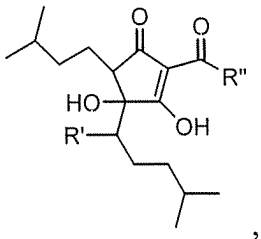
(Genus A), 

,

wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

and wherein R" is selected from the group consisting of $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, and $CH(CH_3)CH_2CH_3$.

5. (Previously presented) The composition of claim 1, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member of Genus B having the formula:

(Genus B), 

,

wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

and wherein R" is selected from the group consisting of $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, and $CH(CH_3)CH_2CH_3$.

6. (Previously presented) The composition of claim 1, wherein said compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member selected from the group consisting of dihydro-isohumulone, dihydro-isocohumulone, dihydro-adhumulone, tetrahydro-isohumulone, tetrahydro-isocohumulone, tetrahydro-adhumulone, hexahydro-isohumulone, hexahydro-isocohumulone, and hexahydro-adhumulone.

7. (Original) The composition of claim 1, wherein said methylxanthine is selected from caffeine; theobromine; theophylline; aminophylline; doxofylline; pentoxifylline; 8-oxopentoxifylline; 8-oxolisofylline; lisofylline; 1-proparagyl 3,7-dimethyl xanthine; 7-proparagyl 1,3-dimethyl xanthine; 3-proparagyl 1,7-dimethyl xanthine; 1,3,7-triproparagyl xanthine; 3-isobutyl-1-methylxanthine (IBMX); 1,3,7-tripropyl xanthine; 7-benzyl-IBMX; 1-propyl 3,7-dimethyl xanthine; 1,3-dipropyl 7-methyl xanthine; 1,3-dipropyl 7-proparagyl xanthine; 3,7-dimethyl 1-propyl xanthine; and 7-allyl 1,3-dimethyl xanthine.

8. (Previously presented) The composition of claim 1, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids; and methylxanthine are in a ratio of about 100:1 to about 1:100.

9. (Previously presented) The composition of claim 8, wherein the methylxanthine is caffeine.

10. (Previously presented) The composition of claim 1, wherein the composition comprises about 0.5 to 10000 mg of said compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

11. (Previously presented) The composition of claim 10, wherein the composition comprises about 50 to 7500 mg of the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

12. (Previously presented) The composition of claim 1, wherein the composition comprises about 0.001 to 10 weight percent of the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha

acids.

13. (Previously presented) The composition of claim 12, wherein the composition comprises about 0.1 to 1 weight percent of the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

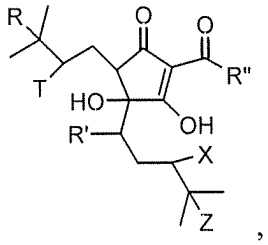
14. (ORIGINAL) The composition of claim 1, wherein the composition further comprises a pharmaceutically acceptable carrier.

15. (ORIGINAL) The composition of claim 1, wherein the composition is formulated for administration orally, topically, parenterally, or rectally.

16. (Withdrawn) A composition comprising a compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids; and a curcuminoid.

17. (Withdrawn) The composition of claim 16, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, hexa-hydroisoalpha acids is derived from hops.

18. (Withdrawn) The composition of claim 16, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member of a supragenus having the formula:

(Supragenus), 

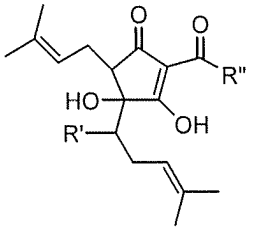
,

wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

wherein R" is selected from the group consisting of $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, and $CH(CH_3)CH_2CH_3$;

and wherein R, T, X, and Z are independently selected from the group consisting of H, F, Cl, Br, I, and π orbital, with the proviso that if one of R, T, X, or Z is a π orbital, then the adjacent R, T, X, or Z is also a π orbital, thereby forming a double bond.

19. (Withdrawn) The composition of claim 16, wherein said compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member of Genus A having the formula:

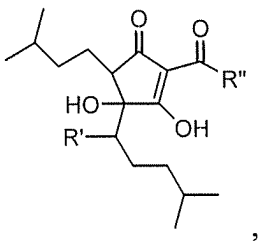
(Genus A), 

,

wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

and wherein R" is selected from the group consisting of $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, and $CH(CH_3)CH_2CH_3$.

20. (Withdrawn) The composition of claim 16, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member of Genus B having the formula:

(Genus B), 

,

wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR,

wherein R is alkyl;

and wherein R" is selected from the group consisting of $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, and $CH(CH_3)CH_2CH_3$.

21. (Withdrawn) The composition of claim 16, wherein said compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids comprises a member selected from the group consisting of dihydro-adhumulone, tetrahydro-isohumulone, tetrahydro-isocohumulone, tetrahydro-adhumulone, hexahydro-isohumulone, hexahydro-isocohumulone, and hexahydro-adhumulone.

22. (Withdrawn) The composition of claim 16, wherein said curcuminoid is selected from curcumin, demethoxycurcumin, bisdemethoxycurcumin, cis-trans-curcumin and cyclocurcumin.

23. (Withdrawn) The composition of claim 16, wherein the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids and the curcuminoid are in a ratio of about 100:1 to about 1:10.

24. (Withdrawn) The composition of claim 23, wherein the ratio is about 3:2.

25. (Withdrawn) The composition of claim 24, wherein the curcuminoid is curcumin.

26. (Withdrawn) The composition of claim 16, wherein the composition comprises about 0.5 to 10000 mg of said compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

27. (Withdrawn) The composition of claim 26, wherein the composition comprises about 50 to 7500 mg of the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

28. (Withdrawn) The composition of claim 16, wherein the composition comprises about 0.001 to 10 weight percent of the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

29. (Withdrawn) The composition of claim 28, wherein the composition comprises about 0.1 to 1 weight percent of the compound selected from the group consisting of reduced isoalpha acids, tetra-hydroisoalpha acids, and hexa-hydroisoalpha acids.

30. (Withdrawn) The composition of claim 16, wherein the composition further comprises a pharmaceutically acceptable carrier.

31. (Withdrawn) The composition of claim 16, wherein the composition is formulated for administration orally, topically, parenterally, or rectally.

32. (Withdrawn) A method of reducing inflammation, comprising administering a composition of any of claims 1-31.